

Amendments to the Claims

Claims 1-13. (Canceled)

Claim 14. (New) A method for producing an oxidation and/or corrosion preventing layer for a component, especially a component of a gas turbine and especially a blade or blade segment, having at least one substrate surface and a substrate composition, by depositing a coating material on the component to be coated in a physical vapor deposition process, wherein a single target containing at least platinum and aluminum as the coating material is used and the coating material is deposited on the substrate surface simultaneously in one process step.

Claim 15. (New) The method according to Claim 14, wherein the substrate composition is comprised of a nickel-based alloy or a cobalt-based alloy.

Claim 16. (New) The method according to Claim 14, wherein the target additionally also contains nickel as the coating material.

Claim 17. (New) The method according to Claim 16, wherein the target additionally also contains cobalt as the coating material.

Claim 18. (New) The method according to Claim 16, wherein the target additionally also contains yttrium and/or hafnium and/or silicon as the coating material.

Claim 19. (New) The method according to Claim 14, wherein cathode sputtering is used as the physical vapor deposition process.

Claim 20. (New) The method according to Claim 19, wherein the cathode sputtering is performed in a vacuum chamber under a protective gas atmosphere.

Claim 21. (New) The method according to Claim 20, wherein the protective gas atmosphere includes argon and/or krypton as a protective gas and/or a process gas.

Claim 22. (New) The method according to Claim 14, wherein the component is subjected to a heat treatment following the physical vapor deposition process.

Claim 23. (New) The method according to Claim 14, wherein the component is mechanically blasted following the physical vapor deposition process.

Claim 24. (New) The method according to Claim 14, wherein the component is mechanically blasted before the physical vapor deposition process.

Claim 25. (New) The method according to Claim 14, wherein the aluminum includes islands of the platinum integrated into the aluminum.

Claim 26. (New) The method according to Claim 14, wherein the target is formed by the aluminum and platinum in a form of an intermetallic phase.

Claim 27. (New) The method according to Claim 14, wherein a composition of the coating material is adapted to the component to be coated and also to the protective layer to be produced.

Claim 28. (New) A method for producing a protective layer for a component, comprising the steps of:

depositing a coating material containing platinum and aluminum on the component by a physical vapor deposition process, wherein the platinum and aluminum are simultaneously deposited on the component by the physical vapor deposition process.

Claim 29. (New) The method according to Claim 28, wherein the physical vapor deposition process includes connecting the coating material to a voltage in a process chamber.

Claim 30. (New) The method according to Claim 29, wherein the physical vapor deposition process further includes the steps of:

accelerating gas ions of a process gas through a voltage field applied to the coating material;

depositing the gas ions on the coating material;

leveraging metal atoms out of the coating material by the deposited gas ions; and

depositing the leveraged metal atoms on the component.

Claim 31. (New) An apparatus for producing a protective layer, comprising:

a process chamber adapted to receive a component to be coated with a coating material;

a cathode disposed within the process chamber, wherein the cathode includes the coating material and wherein the coating material contains platinum and aluminum;

a voltage source connected to the cathode; and

a process gas, wherein the process gas is acceleratable through a voltage field applied to the coating material.